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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,550	08/15/2005	William Patrick Hems	JMYS-122US	1424
23122	7590	09/21/2006	EXAMINER	
RATNERPRESTIA			KOSACK, JOSEPH R	
P O BOX 980			ART UNIT	
VALLEY FORGE, PA 19482-0980			PAPER NUMBER	

1626

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,550	<b>Applicant(s)</b> HEMS ET AL.	
	<b>Examiner</b> Joseph Kosack	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-34 is/are pending in the application.
- 4a) Of the above claim(s) 23-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/15/2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 19-34 are pending in the instant application.

#### *Election/Restrictions*

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. Due to the numerous variables in the claims, e.g.  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , etc... and their widely divergent meanings, a precise listing of inventive groups cannot be made. The following groups are exemplary:

Group I, claim(s) 19-22 (in part), drawn to compounds of Formula I wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a polyethylene glycol.

Group II, claim(s) 19-22 (in part), drawn to compounds of Formula I wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group III, claim(s) 23-24 (in part), drawn to compounds of Formula II wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a polyethylene glycol.

Group IV, claim(s) 23-24 (in part), drawn to compounds of Formula II wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group V, claim(s) 25-26 (in part), drawn to immobilized compounds of Formula I wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group VI, claim(s) 27-28 (in part), drawn to immobilized compounds of Formula II wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

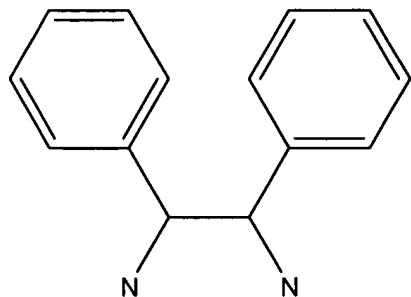
Group VII, claim(s) 29-30 (in part), drawn to a method of making compounds of Formula I wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group VIII, claim(s) 31-32 (in part), drawn to a method of making compounds of Formula II wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group IX, claim(s) 33 (in part), drawn to a method of making immobilized compounds of Formula I wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

Group X, claim(s) 34 (in part), drawn to a method of making immobilized compounds of Formula II wherein  $R^2$  and  $R^4$  are phenyl groups substituted by a nitrile.

In accordance with 37 CFR 1.499, Applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. Again, **this list is not exhausted**, as it would be impossible under the time constraints due to the sheer volume of subject matter instantly claimed. Therefore, Applicant may choose to elect a single invention by identifying another specific embodiment not listed in the exemplary groups of the invention and Examiner will endeavor to group the same. **If Applicant is unable to elect a single invention, Applicant may instead choose to elect a specific compound and Examiner will attempt to group it.** The claims herein lack unity of invention under PCT Rule 13.1 and 13.2 since the compounds defined in the claims lack a significant structural element qualifying as the special technical feature that defines a contribution over the prior art. The compounds claimed contain



, which does not define a contribution over the prior art.

See Ferrand et al. (*Tetrahedron: Asymmetry* 2002, 1379-1384). The substituents vary

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extensively and when taken as a whole result in vastly different compounds.

Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered proper. Additionally, the vastness of the claimed subject matter and the complications in understanding the claimed subject matter imposes a burden on any examination of the claimed subject matter. The method of preparation claims will be examined with the elected invention commensurate in scope therewith.

### ***Response to Restriction***

During a telephone conversation with Frank Tise on September 11, 2006 a provisional election was made **with** traverse to prosecute Invention I, claims 19-22 (in part). Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-22 (in part) and 23-34 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Priority***

The claim to priority as a 371 filing of PCT/GB03/03306 file July 30, 2003 which claims priority to UK 0218675.7 filed August 12, 2002 has been granted in the instant application.

### ***Information Disclosure Statement***

The Information Disclosure Statement filed on August 15, 2005 has been considered fully by the Examiner.

### ***Claim Objections***

Claims 19-22 are objected to for containing elected and non-elected subject matter. The elected subject matter have been identified supra.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

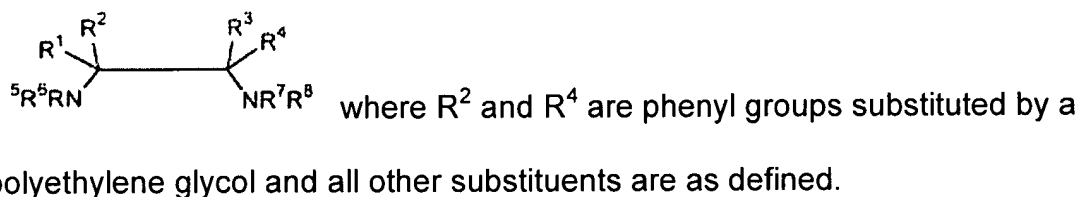
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

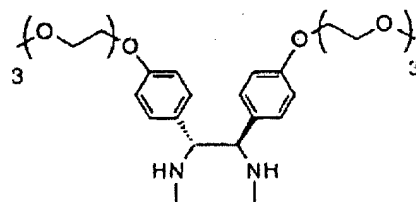
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 19-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrand et al. (*Tetrahedron: Asymmetry* 2002, 1379-1384) in view of In re Wood (199 USPQ 137).

The instant application is drawn to compounds of the formula:



Determination of the scope and content of the prior art (MPEP §2141.01)



Ferrand et al. teach compounds of the formula:

See page 1380, compound 5.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

Ferrand et al. teach a methyl group and a hydrogen on each nitrogen and not two hydrogens. Ferrand et al. do not teach the meta-substituted phenyl ring.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

Hydrogen and methyl are deemed obvious variants. In re Wood, 199 USPQ 137  
Since m-methoxybenzaldehyde is commercially available and could be used in the synthetic scheme of Ferrand et al., it would be an obvious substitution absent of a showing of unexpected results.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to follow the synthetic scheme of Ferrand et al. and substitute methyl for hydrogen in the diamine by using free  $\text{NH}_3$  and not methyl amine to make the claimed invention with a reasonable expectation of success. The motivation to do so is provided by Ferrand et al. Ferrand et al. teach the use of the synthesized compounds for the hydrogenation of ketones. See Table 2 on page 1381.

Thus, the claimed invention as a whole was *prima facie* obviousness over the combined teachings of the prior art.

### **Conclusion**

Claims 19-22 are rejected. Claims 19-22 are objected to.

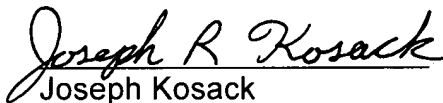
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Kosack whose telephone number is (571)-272-5575. The examiner can normally be reached on M-F 5:30 A.M. until 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Kosack  
Patent Examiner  
Art Unit 1626



Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626